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ABSTRACT

This study explored teacher perceptions of professional development in secondary schools in New Zealand, including the degree of teachers' involvement in, and satisfaction with, the professional development programs available to them and whether or not access to professional development is equitable. The survey of 181 teachers in New Zealand's Wellington and Manawatu/Wanganui regions revealed that 178 of them had participated in professional development activities during the previous 3 years. Courses taken were provided primarily by colleges of education, school-based programs, and subject associations. The courses addressed curriculum areas, assessment, counseling, teaching techniques, and management. The most common form of delivery was 1-day courses. More female than male teachers took four or more courses; overall, men were more likely to take fewer courses than women. Two-thirds of the teachers were satisfied with the quality of the courses attended. About half the teachers were satisfied with the amount of teacher development they had had, and half would have liked more. The most frequently mentioned barrier to teacher development was limited funding. Options for further research are noted, and the survey form is appended. (Contains 10 references.) (JDD)

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TEACHER DEVELOPMENT IN STATE SECONDARY SCHOOLS

A Pilot Study

MARGERY RENWICK

Available from: Distribution Service,
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New Zealand Council for Educational Research
New Zealand Post Primary Teachers' Association
Wellington and Manawatu/Wanganui Region

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BACKGROUND

In July 1993 the Wellington and Manawatu/Wanganui regions of the New Zealand Post Primary Teachers' Association (PPTA) approached the New Zealand Council for Educational Research (NZCER) to discuss the possibility of undertaking a research project on teacher professional development in state secondary schools. As a result of this initial meeting, the Wellington and Manawatu/Wanganui regions of the PPTA sponsored this pilot study which was carried out by NZCER.

Aims of the Project

To explore teacher perceptions of professional development in secondary schools, including the degree of teachers' involvement in, and satisfaction with, the professional development programmes available to them, and whether or not access to professional development is equitable.

Research Questions:

- 1 Who are the main providers of teacher professional development?
- 2 Are there any barriers to teacher access to professional development and, if so, what do teachers think these barriers are?
- 3 What are the main sources of information for teachers about professional development courses?
- 4 How do teachers spend money allocated for professional development?
- 5 Are teachers satisfied with the amount of professional development they have had?
- 6 In what areas would teachers like further professional development?
- 7 Is the amount of professional development undertaken by teachers related to the curriculum areas they teach?
- 8 Is access to professional development influenced by gender, ethnicity, status in school, and/or length of service, including broken service?
- 9 Do inequities exist for smaller and/or rural schools both in terms of access to, and type of, professional development?
- 10 Do teachers perceive that there is a link between professional development and teacher appraisal in their school?

Methodology

Two hundred and seventy-one questionnaires were sent to 14 state secondary schools in the Wellington and Manawatu/Wanganui regions.

School Selection

A representative number of schools were selected by the PPTA reflecting the size, location, and type of school across the 3 regions.

Staff Selection

From the selected schools a list of all current PPTA members was drawn up.¹ In schools that had fewer than 20 members, all members were given a questionnaire. In those schools with more than 20 members, half of the teachers were randomly selected. Questionnaires were distributed through the PPTA branch chairperson to the selected teachers.

Response Rate

Of the 271 questionnaires distributed, 181 were completed and returned. This gave a response rate of 67%.

¹ 95% of teachers in state secondary schools are members of the PPTA.

THE SCHOOLS AND THE TEACHERS

The Schools

The 14 schools were selected for the study to represent urban (4), suburban (4), small town (2), provincial (3), and rural (1) schools. Schools ranged in size from 3 with 20 or fewer staff; 4 with 21-50 staff; and 7 with more than 50 staff.

The Teachers

Gender

Just over 60% of the teachers who completed questionnaires were female. Slightly fewer than 40% were male. These percentages do not equate exactly with those of the education sector workforce census (Dunn, A. *et al.*, 1992). According to this census, 52% of secondary teaching employees are female and 48% are male. In the same survey it was noted that "In general, female employees were more likely to respond to the survey than males (85.6% compared with 78.6%)" (p. 10).

Age

Table 1 summarises the age range of the teachers who completed the teacher development survey and compares their ages with those of the education sector workforce census.

Table 1
Age of Teachers

Age	Teacher development survey %	Education sector workforce census %
20 - 29	8	10
30 - 39	21	32
40 - 49	48	38
50+	22	20

It will be seen from Table 1 that just over two-thirds of all teachers in both surveys are between the ages of 30 and 49, but in our survey the 40- to 49-year age group was overrepresented and that of the 30-to 39-year age group was underrepresented. In other words, the teachers in our survey tended to be older than teachers in the education workforce as a whole.

Length of Teaching Service

The length of teaching service of the teachers surveyed is summarised in Table 2.

Table 2
Length of Teacher Service

Years of service	No.	Teachers %
1 - 9	52	29
10 - 19	72	40
20+	57	31
Total	181	100

In line with the age of the teachers surveyed it will be seen from Table 2 that more than 70% of the teachers had been teaching for more than 10 years, and nearly a third for more than 20 years.

Broken Service

Nearly two-thirds of the teachers (62%) had had broken service and two-thirds of these were women. The reasons teachers gave for having had broken service are summarised in Table 3. There were no statistical differences by gender other than for maternity leave.

Table 3
Reasons for Broken Service

Reasons	No. N = 112	Teachers %*
Maternity leave/family responsibilities	59	53
Overseas travel/teaching	48	43
Study leave	25	22
Other occupations/own business	20	18
Time out/illness	7	6

* % total more than 100 because some teachers made more than one response.

Position in the School

Of the 181 teachers who completed the survey, half were assistant teachers. Forty-one percent of the teachers held positions of responsibility (PRs). The remaining staff were principals (5); deputy principals (4); or assistant principals (7).

Other Responsibilities in the School

Many of the teachers had other responsibilities within the school. Included in these were deans (23); guidance counsellors (10); careers advisers (8); and teacher librarians (6). Other responsibilities teachers hold in secondary schools are wide ranging: two of those referred to most frequently were course or subject co-ordinator and teachers with a responsibility for sporting activities - each referred to by between 25 and 30 of the teachers surveyed. Other teachers also had responsibilities as form teachers or for school activities such as fund raising, audiovisual equipment, computers, exchange students, emergency procedures, newsletters, timetables, peer tutoring, and the stationery shop. Four teachers were staff representatives on the board of trustees.

Ethnicity

About 90% of the teachers identified as Pakeha/European. There were 5 Maori teachers and 5 Chinese as well as individual teachers from Samoa, Tonga, Fiji, and Malaysia. The percentage of Maori teachers was lower than that indicated by the education workforce census (5%). An explanation may be that Maori teachers are not randomly spread across post-primary schools. In our survey one school with several Maori teachers did not respond.

Hours Worked

Most teachers worked full time with only 15 (8%) working part time. Most of these 15 teachers worked for between 10 and 15 hours a week. The part-time teachers were all

Pakeha/European women. Most were between 40 and 49 years of age, with 3 aged between 30 and 39 years, and 3 over 50.

The 8% of part-time teachers in our survey compares with 23% of teachers in the education sector workforce census who were part-time and/or relief teachers. Because the census grouped together part-time and relief teachers, it is difficult to know exactly what proportion of secondary teachers are part time and therefore whether the figure of 8% accurately represents the proportion of part-time teachers.

Study Leave

As was seen in Table 3, 25 of the teachers (15 female and 10 male) had had study leave and all had been paid for this.

We did not ask *when* the teachers had taken study leave so have no means of knowing whether it was a recent experience. At the time of the survey 14 of the teachers who had had study leave were aged between 40 and 49 years; 6 were under 40; and 5 were over 50. Teachers who had had study leave were now likely to be teaching in larger, urban schools. Thirteen of the 25 now held positions of responsibility; 10 were assistant teachers; 1 was a principal; and 1 a deputy principal.

Curriculum Responsibilities of Teachers

We asked the teachers what was their main area of teaching and were there any other areas where they taught. Many teachers teach in more than one curriculum area. The teachers' responses were more wide ranging than we had anticipated. In order to analyse the data, we had to develop a classification system for the various curriculum areas for which teachers were responsible. We decided to base the system on the 7 essential learning areas as described in *The New Zealand Curriculum Framework* (1993). These are: language and languages; mathematics; science; technology; social sciences; the arts; and health and well-being. We separated English from language and languages, and added special education. We also had an "other" category to cater for the responsibilities of teachers such as guidance counsellors and teacher librarians. Although we used this classification system, historically schools have not necessarily classified teachers' curriculum responsibilities according to these headings.

A problem with any classification system for the curriculum for secondary schools is the lack of consistency across schools as to which department has responsibility for a particular curriculum area or subject. Media studies and English as a second language, for example, could be part of the English department or in a department of their own. English as a second language could also come under a department with responsibility for children with special needs, and media studies could be located in the arts. Decisions within schools may be influenced by the strengths of individual teachers, the size of the school, and the number of students involved in a subject, as well as funding allocations. The changing nature of the curriculum and the way individual subjects are taught also influences the location of subjects within departments.

The following subjects were included within the 10 categories we used to classify the teachers' responses:

English -

Media studies

Literature
Film and video

Language and languages -

Maori
French
Japanese
Pacific Islands languages
Other languages

Mathematics -

Statistics
Accounting

Science -

Biology
Chemistry
Physics
Horticulture/agriculture
Environmental studies

Technology -

Home economics
Computer studies
Typing/keyboard
Shorthand
Graphics and design
Woodwork/metalwork
Electronics/engineering

Social Sciences -

Social studies
Geography
History
Economics
Religious studies
Business studies
Sociology
Classical studies
Integrated studies
Pacific education

The Arts -

Art
Music
Drama

Dance

Health and Physical Well-being -

Physical education

Health

Life skills

Special Education -

English as a second language

Remedial reading

Transition

Other -

Administration

Guidance/counselling

Library/research

The number of teachers in our survey who teach in each curriculum area according to our classification are given in Table 4. Included in the table are both "major" and "minor" areas of responsibility.

Table 4
Curriculum Areas Taught by Teachers

Curriculum area	Major area of teaching		Minor area of teaching	
	Teachers N=181		Teachers N=139*	
	No.	%	No.	%**
English	33	18	11	6
Mathematics	22	12	18	10
Technology	24	12	14	8
Science	24	13	13	7
Social sciences	24	13	31	17
Health and physical well-being	14	8	24	13
Language & languages	10	6	7	4
The Arts	13	7	8	4
Special education	18	5	9	5
Other	11	6	4	2

* Some teachers did not have a "minor" area of teaching.

** These percentages are calculated as a proportion of the total number of teachers (N=181), and therefore do not total 100.

We cannot quantify distinctions between "major" and "minor" areas of teaching. It is interesting to note that nearly as many teachers of mathematics teach it as a "minor" area of teaching as do those for whom it is their "major" responsibility. For the social sciences and health and physical well-being, the number of teachers for whom the area is of a "minor" responsibility exceeds the number for whom the subject is a "major" responsibility; this is particularly so for health.

TEACHER DEVELOPMENT

We asked the teachers to describe the professional development they had had during the last 3 years by specifying the provider; length; topic covered; and how they would rate the usefulness of the professional development on a 5-point scale.

Providers of Teacher Development

The main providers of professional development for secondary teachers are summarised in Table 5.

Table 5
Providers of Teacher Development Courses

Provider	Courses taken by teachers	
	No. N = 181	%
College of education	275	37
School-based	149	20
Subject association	95	13
Private	62	8
Ministry of Education	25	3
NZ Qualifications Authority	14	2
Other	116	17
Total	730	100

It will be seen from Table 5 that the teachers surveyed were most likely to get professional development from 1 of 3 sources: a college of education; a school-based programme; or a subject association (particularly for courses focusing on specific curriculum topics). There were, however, a large number of "private" and "other" providers, which accounted for 25% of the teachers' responses. These providers were not always specified but included private consultants, other schools and "cluster groups", universities, polytechnics, the Special Education Service, Presbyterian Support Services, the Careers Service Rapuara², SPANZ, TRCC, HETANZ, the Japan Foundation, the Department of Social Welfare, the Sports Foundation, the Hillary Commission, the Principals' Federation, Jaycees, the Red Cross Society, Te Ataarangi, the Goethe Society, a city council, Longman Paul Ltd, and health boards.

² Formerly called Quest Rapuara.

As with all questions we had problems with classification. We took colleges of education to include teacher support services and "outposts" of the colleges but we do not know whether all teachers made these assumptions. Nor were the categories necessarily discrete. The Ministry of Education funds much of the teacher development carried out by colleges of education so that teachers may regard both as "providers".

As most contract-based teacher development funded by the Ministry is carried out by colleges of education it is not surprising that they are major providers of teacher development courses for secondary schools. However, we do not know how many of the teachers in our sample were in schools who were participating in teacher development contracts funded by the Ministry of Education. Our sample of schools does not allow us to comment on whether or not distance from a college of education is a barrier to teacher development, although we did have teachers who said they considered themselves to be fortunate to be teaching at a school within a close proximity to a college of education. Most of the schools in our study were close to either the Wellington or Palmerston North Colleges of Education, so we may have a distorted view of the importance of colleges of education in providing teacher development courses. A national study which included, for example, Hawkes Bay or the West Coast might present a different picture although there are teacher support services and "outposts" in those areas. In Wilson and Houghton's (1993) study there was no significant difference in distance to their nearest college of education between schools which did and did not participate in Ministry contracts in 1992, although there was a tendency for schools participating in contracts to be located closer to colleges of education than those that did not (p. 17). Similarly, the amount of money schools spent on teacher development was not affected by their distance from a college of education (p. 7).

We did not raise the question of distance learning and teacher development. We assumed that most teachers who took a teacher development course attended the course in person. All colleges of education have a component of distance education courses in their programmes for both preservice and inservice training. An example is reported on in the "Professional Development Supplement" to the *PPTA News* (Vol. 15, No. 2, March, 1994) which describes some of the services provided by the Professional and Community Education (PACE) arm of the Palmerston North College of Education. Teacher development by distance education would be useful focus of any follow up studies.

Teacher Development Undertaken

One hundred and seventy-eight of the 181 teachers who completed a questionnaire referred to professional development they had taken during the previous three years. Some said it was difficult to remember the number and range of courses taken over that time. Others pointed out that they had run more courses than they had attended as a participant. The teachers' responses divided into 5 categories:

- curriculum areas
- assessment: frequently mentioned was achievement-based assessment (ABA)
- counselling
- teaching techniques
- management

These categories were not mutually exclusive and it was not always easy to decide how a response should be classified. Some teachers, for example, said they had attended courses

in assessment for mathematics. The responses have been classified as assessment on the grounds that although many responses referred to a particular curriculum area, it was a specific process within that area that was of special interest to the teacher. An added complication was that a course could cover a range of topics. A 1-day school-based course, for example, might focus on a specific curriculum area as well as assessment, teaching techniques, and management.

A distinction also needs to be made between the number of courses attended by teachers over all and the number of courses relating to a particular topic an individual teacher might have attended. For example, 108 courses on assessment were attended by 72 teachers which indicates that most teachers who attended an assessment course probably attended 1 or perhaps 2 courses. With counselling, on the other hand, 81 courses were attended by 37 teachers, which indicates that teachers who attended counselling courses were likely to attend several such courses.

Curriculum Areas

This was by far the largest category and included nearly half of the teachers' responses. About 5% of the teachers' responses referred to courses which may have covered several curriculum areas, for example, "the new curriculum initiatives". Others were more specific and ranged across the 7 essential learning areas which we had used earlier to classify the subjects taught by teachers.

The largest number of courses within the 7 essential learning areas centred on technology (about 14%). The courses included in this category were of 2 rather different kinds. About two-thirds were to do with technology as a curriculum area, for example, courses in graphics and design, and home economics. Most of the remainder referred to computers. Courses could deal with the use of computers in a particular curriculum area, for example, art or science, or they could be intended to improve the computer literacy skills of teachers for general classroom and school use.

Courses in English, social sciences, and health and physical well-being were referred to by between 4% and 6% of teachers. Teachers were least likely to attend curriculum courses in languages, the arts, and special education (about 3% in each case).

Assessment: Achievement-based Assessment (ABA)³

Of all the topics covered in professional development courses, assessment was the one referred to by the largest number of teachers. About 100 (14%) of the courses referred to by teachers were to do with assessment, particularly achievement-based assessment. Many teachers simply wrote ABA. Those who were more specific usually referred to their curriculum area.

The remainder of the teachers were equally likely to mention courses they had taken in one or other of the 3 remaining categories: counselling; teaching techniques; and management (about 10% of responses in each case).

³ At the time of the survey ABA had been implemented in schools and was expected to be further developed during 1993. Because of the problems of adequately defining standards for assessment, the New Zealand Qualifications Authority subsequently decided that ABA would not be used for assessment for national qualifications.

Counselling

Counselling is a broad heading which covered a wide range of topics, some of which could equally well have been classified under health and physical well-being, for example, adolescent sexuality and drug and alcohol abuse. References to training for guidance counsellors and careers advisers have been included in this category along with topics such as stress management, youth suicide, adolescent grief, and family therapy.

Teaching Techniques

The topics we have classified under teaching techniques were varied but all related to improving teaching and learning in the classroom, for example, teaching strategies, accelerated learning, problem solving, mixed-ability grouping, multi-level teaching, co-operative learning, discipline, and courses run especially for beginning teachers.

Management

Management courses tended to divide into 2 groups. The first were courses for teachers with positions of responsibility, for example, principals or heads of departments. Others focused on management issues within a school such as school administration, finances, shared decision making, women in management, and staff communication.

Miscellaneous

About 5% of the teachers' responses did not fit into any of these categories. They included gender issues only mentioned by 9 teachers and the Treaty of Waitangi by 2. Isolated references were even made to such things as school jumbo days!

Differential Access

The PPTA was interested in differential access to teacher development. We attempted to discover whether access varied depending upon "teacher" variables, such as gender, age of teacher, status of teacher, length of service, and the main curriculum area taught, or by "school" variables, such as the location and size of the school.

Unfortunately, our small sample size meant that the number of either teachers or schools in particular categories meant that statistical tests of significance were inappropriate. The only variable which provided any evidence of differential access was gender. As can be seen from Table 6 there were significant differences between men and women in terms of the number of courses taken. Proportionately more female than male teachers took 4 or more courses. Over all, men were more likely to take fewer courses than women. (chi-square = 8.426229, df = 3, p = .0379)

Table 6
Number of Courses Taken by Individual Teachers by Gender

Number of courses	Women (N=113)		Men (N=68)		Totals (N=181)	
	No.	%	No.	%	No.	%
0	1	1	5	7	6	3
1-3	32	29	26	39	58	33
4-6	58	53	27	40	85	48
7+	22	20	10	15	32	18

We were not able to distinguish between the experience of teachers in schools of varying size because of our small sample size, but Wilson and Houghton (1993), who did do so, suggest that there is no relationship between school size and the relative amounts spent on different areas of teacher development (p. 17).

Teacher Development by Curriculum Area Taught

We tried to establish whether or not teachers who had a major responsibility in one particular curriculum area were more or less likely than teachers in other curriculum areas to have attended teacher development courses. Small numbers of teachers in some curriculum areas made statistical testing inappropriate. However, there appeared to be a trend for teachers of science, technology and mathematics to be more likely than teachers of, for example, English and the arts, to have attended curriculum courses.

We also tried to establish whether or not teachers who took teacher development curriculum courses were likely to take them in areas of major as compared with minor responsibilities. We have already noted that some curriculum areas are more likely than others to have teachers teaching in what is not their main area of responsibility (see Table 4, p. 8). This is particularly the case with mathematics, the social sciences, and health and physical well-being. Table 7 indicates the teacher development curriculum courses taken by teachers according to whether or not the subject is a teacher's major or minor responsibility.

Table 7
*The Number of Teachers Who Have Had Teacher Development
 in Either Their Major or Minor Curriculum Area*

Curriculum area	Major*	Minor
English	14 (33)	3 (11)
Language/languages	7 (10)	3 (7)
Mathematics	15 (22)	2 (8)
Social sciences	13 (24)	9 (31)
The Arts	6 (13)	1 (8)
Health and physical well being	8 (14)	6 (24)
Science	20 (24)	5 (13)
Technology	18 (24)	4 (14)
Special education	2 (8)	1 (9)

*The figure in brackets is the number of teachers teaching in a curriculum area.

The numbers are too small for statistical analysis but there appears to be a trend for a higher proportion of teachers who teach a subject as their major subject to have had some professional development in the subject than teachers who have a minor responsibility for the subject. This is particularly so in mathematics where only 2 of the 18 teachers who said they taught mathematics as a minor responsibility have had professional development in mathematics compared with 15 of the 22 for whom mathematics is an area of major responsibility.

Teachers' Ratings of Teacher Development Courses

We asked the teachers to rate the teacher development courses they had taken on a 5-point scale from excellent to poor. Nearly two-thirds of the teachers thought the courses they had attended were either "very good" (38%) or "excellent" (24%). Just over a third thought they were either "good" or "average" with only 4% of teachers saying the courses were "poor". As most teachers were relatively well satisfied with the quality of the courses they attended, there was little to distinguish the ratings they gave to the courses provided by the various providers.

A few teachers also said they were not able to take teacher development courses in more than one curriculum area. As one teacher commented:

Teaching in different subject areas makes getting professional development difficult as I am entitled to only one course per year. This makes keeping up to date with current techniques in all my teaching subjects virtually impossible.

Length and Timing of Courses

The courses taken by teachers varied in length ranging from a few hours (sometimes over several weeks) to week-long courses. The most common length was 1 day, the length for 41% of the courses taken by the teachers in our survey. Courses of between 2 and 5 days' duration accounted for 30%, and courses of half a day or less for 16%.

We know that 1-day courses were the most common form of delivery but we cannot tell from this study whether teachers prefer 1-day courses nor whether they regard them as effective. The study by Wilson and Houghton (1993) did find that:

There is a clear preference by schools for long term, ongoing teacher development programmes rather than short term, discrete events. (p. 18)

This finding also confirms the validity of the approaches described by Bell (1993) as being necessary for effective teacher development.

We did not ask teachers whether they preferred teacher development courses to be held in or out of school hours and if they were held out of school hours whether they preferred after school, weekends, or school holidays. Some teachers did add comments usually relating to fitting in teacher development with family commitments. Courses held out of school hours have budgetary implications for schools as teacher release time greatly increases the cost of funding teacher development (*see also* Wilson and Houghton (1993) p. 3).

Other Forms of Teacher Development

Teachers were free to describe any activity which they considered to be part of their professional development but most confined their comments to courses which were intended for teachers in schools. There are other forms of teacher development not systematically tapped by this study, for example, university degree or diploma courses. A few teachers referred to such things as private piano lessons or sports coaching certificates which they considered to be for their professional development. Other teachers may well be involved in similar out-of-school activities which contribute to their effectiveness as classroom teachers.

Areas for Future Teacher Development

We asked the teachers to specify areas in which they would like future professional development; their responses divided into 5 main categories:

- specific curriculum areas
- assessment
- teaching techniques and classroom management
- computers and/or audiovisual aids
- management

As with the professional development courses teachers had already undertaken, categories were not mutually exclusive and it was not always easy to decide how a response should be classified.

Specific Curriculum Areas

This was by far the largest category. Nearly half of the teachers (47%) said that they would like further teacher development in the curriculum. About a quarter of these teachers did not specify a particular area but made general comments about the need to keep up with curriculum development or changes to the national curriculum and the curriculum initiatives, or unit writing within a curriculum area. Other teachers specified particular curriculum areas. Not surprisingly, as more teachers have a responsibility for teaching English than any

other subject, the highest number of teachers, about 16, referred to teacher development in English, sometimes specifying particular topics such as language across the curriculum (LAC), creative writing, English literature, English as a second language (ESL),⁴ or courses geared to a particular level of the school.

The next 2 most frequently mentioned curriculum areas were technology and art, each mentioned by about 10 teachers. Other comments ranged across the curriculum, specific areas being mentioned by 6 or fewer teachers.

Assessment: Achievement-based Assessment (ABA)

About a quarter of the teachers referred to the need for teacher development in assessment and appraisal and about half of these referred to achievement-based assessment. Many teachers simply wrote ABA. Those who were more specific usually referred to their curriculum area. Others referred to "appraisal systems" or "types of assessment". The teacher who said, "All aspects of curriculum and assessment procedures under the national curriculum", would probably sum up the views of many.

Teaching Techniques and Classroom Management

This is a broad heading used to classify the responses of about 30 teachers (or 16%) who said they would like professional development in areas to do with improving the teaching and learning in their classroom. Specific topics referred to were group teaching including coping with mixed-ability groups or multi-level learning and teaching strategies; interactive teaching; behaviour and discipline; alternative learning styles such as co-operative learning; cross-curricula organisation; and how to better motivate students. Included in this category were a few references to resource development and preparation, and standard ways of writing form programmes and schedules.

Computers and/or Audio-visual Aids

About 20 teachers (10%) referred to the use of computers and a few to audiovisual aids. About half of these teachers were interested in basic computer literacy skills, and about half in the use of computers in a specific curriculum area, particularly art and design.

Management

Management courses, including 2 references to total quality management (TQM), were referred to by 16 teachers. The teachers' comments were wide ranging. In some cases management in relation to a particular role was specified, for example, as head of department (HOD), position of responsibility (PR), dean, or "middle" management. In other instances teachers referred to specific responsibilities such as finances. One teacher thought members of boards of trustees should take courses in curriculum development so that they would have a "balanced understanding of teacher needs and resources".

About 40 of the teachers' suggestions for future teacher development did not fall within these 5 categories. About 10 of these referred to the need for more courses on counselling. Although such comments were usually made by guidance counsellors, other teachers would also like life-skill courses, and courses in interpersonal relationships and communication. The

⁴ Also referred to as English for speakers of other languages (ESOL) and more recently children from non English speaking backgrounds (NESB).

need for more courses in problems of concern to teenagers were listed: truancy, sexual abuse, drug and alcohol abuse, and suicide. Courses for pupils with special needs and "transition" courses were also suggested. A couple of teachers would like courses in retirement.

Possible areas for future teacher development that were seldom referred to were also of interest. There were, for example, few references to Maori education or the Treaty of Waitangi and few to issues to do with women and girls. The remaining comments tended to suggest broad themes such as "changes in the education system". One such teacher commented:

Global view of education in the 1990s and 2,000. Where are we going. How are we getting there. What are the needs. NZQA requirements. Units of learning. (The big view again.) So I don't feel as though I'm groping in the dark.

Satisfaction with Amount of Teacher Development

Teachers were almost equally divided in their views as to whether or not they felt they had had an appropriate amount of teacher development over the last 3 years. Further analysis by the number of professional development courses taken by teachers indicated that those who had taken 4 or more courses over the last 3 years thought the amount was "about right". Seventy-five percent of teachers who had taken between 1 and 3 courses felt it was "not enough". The number of courses taken does not necessarily equate with effective teacher development, but there was a tendency for teachers' satisfaction with the amount of teacher development they had had to increase with the number of courses they had taken. (χ^2 29.94458, $df = 6$, $p = .0084$).

Our analysis of teacher satisfaction with the amount of teacher development they had had by the age of the teacher, the length of their teaching service, and their status in the school, did not reveal any significant statistical differences. In percentage terms assistant teachers were less likely to think the amount they had had was about right (42%), compared with teachers holding positions of responsibility (65%) or principals, and deputy and assistant principals (63%), but because the numbers of principals and deputy and assistant principals was so small in our survey, we cannot tell if there is a statistically significant difference between these groups. A similar point can be made about teacher satisfaction with the amount of teacher development they have had according to the curriculum area they teach as their major responsibility. Teachers of mathematics and science were more likely to think the amount of teacher development they had had was "about right" than did teachers of other subjects but our numbers were too small to test reliably across all the areas of the curriculum. Had there been more teachers of each curriculum area in our study, there may have been a discernible trend for mathematics and science teachers to feel that the amount of teacher development they had was "about right" compared to teachers in other curriculum areas.

Barriers to Teacher Development

We asked the teachers if they thought there were any barriers to their getting the professional development they needed and, if there were, which of a list of possible barriers applied to them. Nearly a quarter of the teachers (22%) thought there were *no* barriers. The factors which the remaining teachers felt to be barriers for them are summarised in Table 8.

Table 8
Barriers to Teacher Development

Barriers	No. of teachers N = 181	Teachers No. % (N = 181)
Insufficient funds in school budget	86	48
Relevant programmes not available	69	38
Programmes unavailable at times convenient to me	36	20
I do not have the time	34	19
Courses unavailable in the format I require	26	14
Unwillingness of school to release me	15	8
The money always goes to other people	8	4
I have no say in the PD/undertake	8	4
I do not know what is available	8	4
Remoteness of school	4	2
	294*	

* Totals more than 181 because some teachers indicated more than 1 barrier.

It is clear from Table 6 that the 2 main barriers to professional development as perceived by teachers are lack of funds (48%) and lack of relevant programmes (38%).

Sources of Information on Professional Development Courses

Teachers appear to be well informed about professional development courses available to them. We saw in Table 8 that only 8 teachers regarded the fact that they did *not* know what was available to be a constraint. We asked the teachers to indicate where they got information about professional development courses that were available. Table 9 summarises their responses.

Table 9
Sources of Information on Teacher Development

Source	Teachers	
	No. N = 181	%
<i>Education Gazette</i>	103	57
HOD/senior staff	81	45
College of education/teacher support services	75	41
School principal	62	34
PPTA	20	11
Other	25	14
	366*	

* Totals more than 181 because some teachers indicated more than 1 source.

Teachers typically rely on more than one source of information with more than half indicating the *Education Gazette* as a major source. Information is obviously circulated within schools, with 43% of teachers saying they are informed by heads of departments and a third by the principal. As the colleges of education are major providers of teacher development it is not surprising that 41% of teachers said they received information from them. The comments categorised under "other" most frequently referred to "word-of-mouth" or "networking", usually among teachers with like responsibilities, for example, guidance counsellors, or to circulars and advertisements read by teachers because they belonged to a professional organisation, for example, the New Zealand Choral Federation. Publicity from universities, polytechnics, and the National Library also fell into this category.

Allocation of Money for Teacher Development

About 60% of the teachers had had money allocated to them for professional development. This does not mean that money was not available for the remaining 40% of teachers for teacher development. As one teacher commented:

In my school, and I imagine in many others, the money is not allocated to teachers but kept in a fund to be used to pay for relevant courses for particular teachers when courses are announced.

Those who have been allocated money had spent it, in the ways indicated in Table 10.

Table 10
The Main Areas Where Money has Been Spent

Area	Teachers	
	No. N = 107	%
Course fees	72	67
Conferences fees	45	42
Travel expenses	33	31
Membership of associations	27	25
Accommodation	18	7
Total	195	

*Totals more than 107 because some teachers indicated more than one area of expenditure.

The main item of expenditure is clearly course and conference fees. The items listed in Table 10 are not the only or major costs associated with teacher development. As we mentioned earlier, the largest expenditure for schools is teacher release time.

Nearly three-quarters of the teachers (71%) had spent personal money on professional development over the last 3 years.⁵ The amount they had spent is summarised in Table 11.

Table 11
Amount of Personal Money Spent on Teacher Development in Last 3 Years

Amount of money	Teachers	
	No. N = 181	%
\$		
20 - 50	14	8
51 - 100	19	10
100 - 200	28	15
200 - 500	31	17
500+	22	12

Teacher Development and Teacher Appraisal

We tried to discover whether teachers believed that there was a direct link between professional development and teacher appraisal in their school. About two-thirds of the

⁵ It is interesting to note that Wilson and Houghton (1993) in their study of expenditure on teacher development do not refer to the personal contribution of teachers.

teachers said there was a system of teacher appraisal in their school. These teachers were divided in their views as to whether or not there was a link between teacher appraisal and professional development - 47% thought there was and 53% thought there was not.

Teachers were also given the opportunity to add a comment. Fifty-seven of those teachers who answered "yes", and 29 of those who answered "no" did so. By far the most common response of those teachers who believed that there was a direct link between professional development and teacher appraisal in their school (about 30 teachers) was that one aspect of an appraisal system was to identify areas where a teacher needed to have more experience or develop skills. The way for this to happen was through teacher development. Sometimes this was done on an individual basis. On other occasions it was team based. In the words of 3 teachers:

Areas of weakness or strengths can be developed through appraisal and followed up through professional development.

There is a professional development/job appraisal system in place in our school. This monitors the direction teachers need to take for professional development as well as noting motivation of teachers for further professional development.

Our appraisal system focuses on the development needs of our staff and jointly we work out the best ways of meeting these needs.

The other largest category of comments from about 15 teachers was that as their school did not have an appraisal system, regardless of whether they thought there should be a link between appraisal and teacher development, they did not think there were any links in their school. A few spoke of "developing" systems or links between the two being "marginal". Most of the other comments could be described as qualifying comments - much depended on the nature of the appraisal and the teacher development. Provided both were handled in a positive and objective way, they were valuable and links between the two were appropriate. Only 2 teachers added comments objecting to links between teacher appraisal and teacher development.

Part-time Teachers

As there were only 15 part-time teachers in the survey it is not possible to make any conclusive statements about their experience of teacher development as compared with full-time teachers. The comments about the 15 part-time teachers which follow relate to the teachers in our survey and cannot be generalised to all part-time teachers in secondary schools.

The group divided almost equally as to whether they taught in more than 1 curriculum area. Several of those who now taught in only 1 area had taught in others in the past. When they referred to their main area of teaching, 4 said they taught English (including English as a second language and remedial reading). Three of the part-time teachers taught languages, and 2 taught either art or typing. Mathematics, music, and science were each taught by 1 teacher. One was a guidance counsellor. With the exception of the guidance counsellor who held a PR1 position, all the rest were assistant teachers.

In terms of their teaching service, 6 had taught for fewer than 10 years, 6 had taught for between 10 and 19 years, and 3 had taught for more than 20 years. All had had broken

service. For 11 of the 15 this had been for maternity leave. Study leave and travel were the other 2 explanations for broken service, sometimes for those who had also had maternity leave.

We were not able to detect any important differences in the amount and kind of teacher development experienced by part-time teachers as compared with full-time teachers. All the part-time teachers had attended professional development courses over the past 3 years. The number of courses taken by part-time teachers exemplified their commitment to teaching. The number of courses attended ranged from 1 to 12, but the most likely number of courses attended was 3 or 4, which was the case for 9 teachers. Most courses were provided for by a college of education or were school based. The courses were likely to relate to the curriculum area which was the part-time teacher's main area of responsibility, although 8 teachers had attended courses on achievement-based assessment, and 8 on more general teaching techniques and classroom management. As with full-time teachers, part-time teachers were almost equally divided in their view as to whether the amount of teacher development they had had was "about right" (8) or "not enough" (7). Four of the part-time teachers did not think there were any barriers to their teacher development. The part-time teachers indicated the same range of barriers as did full-time teachers, the main one being "insufficient funds in the school budget".

On the one hand, part-time teachers may feel that because they work for shorter school hours they cannot expect to have those hours encroached upon to take teacher development courses. On the other hand, they may feel that the fact that they are prepared to give up their own time to attend courses while full-time teachers attend during school hours, is not sufficiently acknowledged.

As a part-time, permanent job-share employee, much of my attendance at courses involves giving up my own free time while others attending are still being paid. While it seems too much to hope for to get paid for all time attended, some positive recognition of this would be very helpful, e.g., "Thanks for coming in your own time".

Several of the part-time teachers were also relieving teachers. Two of these suggested that it was being a reliever rather than being a part-time teacher which might limit the amount of teacher development available to them, although both had attended courses. The following are some examples of comments made by part-time teachers:

I have had a great deal of help from my heads of department and other staff in suggesting/providing resources and giving encouragement as I have explored teaching again ... As a part-time/long-term reliever my professional development has a lower priority than permanent staff ... I have found the on-the-job professional development very useful. I am aware that if I was permanent full-time there would be copious courses available that I would think it worth pursuing and the school would probably release me for. I sense no niggardliness about releasing people for professional development here.

I have worked on a part-time basis 4 days for 1 year, 22 hours for 6 months. After 16 months off I now work 14 hours. As a part-time teacher I don't feel I can apply to do lots of courses during school time.

This year I have a long-term relieving part-time position. The school has sent me on 2 courses, but, understandably does not want to pay for courses when I may not be here next year if the teacher I am relieving for decides to return.

Being a part-timer has not been a disadvantage in access to teacher development. If anything, I have been encouraged.

One part-time teacher concluded with a fulsome statement about the quality of advice about professional development provided by the PPTA, emphasising the help for new teachers; access to information about issues affecting teaching such as methods of assessment; the value of PPTA networks; and the fact that the PPTA is proactive in initiating debate in staffrooms on educational issues.

Maori and Pacific Island Teachers

Because most of the teachers in our survey are Pakeha/European (as is the secondary teaching force), it was not possible for us to do any analysis by ethnic group. If the PPTA is particularly interested in the teacher development experience of Maori and Pacific Island teachers, it would probably be necessary to specifically target those teachers. We do not know, for example, what, if any, professional development courses are intended particularly for bilingual teachers or whether specific agencies provide courses of particular use to Maori teachers or teachers of Maori.

Mitchell and Mitchell (1993) in their study, *Maori Teachers Who Leave the Classroom*, noted that opportunities for professional development was "one of the most serious concerns for Maori former teachers" (p. 74). Maori teachers, while facing all the demands of other classroom teachers, were frequently expected to undertake tasks such as counselling and bilingual teaching "for which they had had no training at all". Maori teachers were sometimes unable to attend teacher development courses because of the difficulty of finding teachers who could relieve in Maori language courses. The Maori teachers described by Mitchell and Mitchell spoke of their need for teacher development in aspects of Maori language and culture. Some of them will have attended teachers colleges before there was any training in the teaching of Maori. We do not know the extent to which Maori teachers still face the same problems.

Teachers' Concluding Comments

At the end of the questionnaire teachers were given an opportunity to make any further comments about teacher development and 91 (50%) of the 181 teachers did so. The comments were wide ranging, difficult to classify, and tended to emphasise or expand on issues raised earlier in the questionnaire.

About 15 teachers either stressed how important they believed teacher development to be or gave examples of good practice in their school.

I believe that professional development is the key to providing a positive and stimulating teaching and learning environment.

It should be part of any professional educator's contract that s/he must engage in a minimum amount of "teacher development" to avoid mental stagnation and to ensure continued professional development and awareness of new ideas -

techniques. Too many teachers sit on an ancient cobwebby degree and think that is enough. *It isn't.*

Yes - professional development of teachers is the key to the success of all the changes and all that the system could achieve in New Zealand. Professional development to a large extent is a satisfactory payoff to teachers. They gain more satisfaction from their job, greater support within structures, better achievements with students, greater credibility in the community. Their individual careers can find direction in more than one area to specialise in rather than the traditional classroom teacher administrator path. Teachers with highly developed areas of expertise within schools will help in the shared decision-making process.

Within our school there are few barriers to teacher development, regarding courses, conferences, etc. - few are turned down.

Our school has a generous budget because professional development is valued. It is not a cost to a particular department which probably means more generous access for me but perhaps not *even* access to courses, e.g., part-timers may miss out. I have some P.D. in my own time (i.e., Saturday) but believe it should be in school time. I think the new initiatives will require *more* P.D.

Every teacher in the school has a basic allocation of 1½ days of staff development during school time, but some request and are granted more. Expenses are paid for further opportunities offered/applied for during weekend or holiday times although naturally there are limits.

I feel fortunate to live in an area with a college of education - this makes courses more accessible. Travelling away from home and possible accommodation away from home would be difficult with my responsibilities for a young family.

Being a part-timer has not been a disadvantage in access to teacher development. If anything, I have been encouraged. I have been happy to spend some of my own (unpaid) time to attend mostly very worthwhile courses.

Another group of teachers - about 10 - referred to the speed of change within the education system, particularly within areas of the curriculum, and how this increased the need for teachers to have access to appropriate teacher development courses. About an equal number of teachers spoke of the stress of teaching, exacerbated by the speed of change and added to by the increase in administrative tasks teachers were expected to carry out, with, in their view, inadequate support. Inadequate funding added to the problem.

Teachers are increasingly under pressure to undertake tasks that were previously covered by the Department. There is insufficient time, or funding to cover this. Teachers are expected to do tasks for which they have no training and no experience. It seems that the job of teaching a subject is now only ½ the position. This must be addressed, and good quality training and development courses offered to all on a regular basis.

While teacher development aims to improve the knowledge, skills, and efficiency of the teacher, the reality is that the demands of education are greater: there should be much more ancillary time available especially to deal with the clerical functions that teachers have to perform in their job. *Every* private enterprise area has an office secretary. Every department in a school should have a secretary to perform the clerical functions. Let teachers get on with the real job. Until this aspect is resolved really all the professional development in the world comes back to have I got time to:

- set goals
- prepare properly
- do a good job
- be enthusiastic

Costs can be a major factor. Maybe not the actual course, but petrol, food, accommodation, and also the giving up of weekends etc. When you're busy coaching Saturday sport, it can be a hassle getting in someone to take your team.

Our school pays 1/3 of expenses which does not cover very much.

Other comments focused on the best forms of delivery of teacher development including the kind of "leaders" required; whether or not teacher development should be school based; and the timing of courses, particularly whether or not they should be outside school hours. The following indicate the range of comments made by about 20 teachers.

Courses run by classroom teams often need to be "evaluated". Many courses are 1 day only and are fill ins. I question their usefulness.

Some of the most successful teacher development in my school has occurred when HODs have organised their own in-house inservice, designed specifically to meet our needs. However, to gain the advantage of outside ideas, a balance must be achieved between this and development from other providers.

It would be most helpful to me and I am sure to others if well established teachers were given time to visit predetermined teachers in need of assistance at their school. A bit like an art adviser.

There is not enough and it is not targeted specifically. The trickle-down model of sending a person to a week course who runs a course for the department after school is very weak. The amount of money needed to set up a new curriculum has been grossly underestimated. I would like to take my department out for a week to develop our new scheme - fat chance.

Fresh faces in curriculum areas are needed. In our region only 1 or 2 people seem to be the chosen disseminators - gets repetitive and boring.

I would like to see a more consistently professional approach to planning and presentation of inservice courses - more training for the trainers.

I appreciate the current level of flexibility in teacher development delivery so that I have a greater choice of PD available, e.g., the chance to use private providers and other specialists.

Courses held in the school holidays require arrangements to be made for child care as my children are on holiday too. As a specialist teacher, good relief is sometimes hard to get as it requires skills of teaching outside a classroom. Usually classes have not been catered for.

I would like holiday courses - the ones offered appear very expensive. It's too much time taken to leave at 7.00 a.m. to travel to courses (remote school) get back 6.00 p.m. and also prepare work for relievers.

I am concerned about the growing number of courses occurring in the teachers' own time especially as the workload of teachers has increased.

About a dozen teachers raised questions related to teachers having adequate information about courses, as well as co-ordination of courses at the school, district, and national level. One teacher suggested that a New Zealand index of educational research would aid teachers in their professional development. Other comments included:

On-going quality teacher development results in on-going quality teaching (or counselling). We are competent people; let us choose what we think and feel is necessary for us in the here and now in order to plan our future. In order to achieve this it is important that comprehensive lists of courses available *all* over the country are published even if we have to pay travel expenses for a facilitator or the person attending - A key instructor or group to collect and distribute?

It would be useful to have 1 directory of courses provided by all sources so that it would be possible to see everything available - one's subject area for the year and plan accordingly.

Statistics about number of teachers (or %) in each discipline who get to attend T.D. perhaps broken down into districts, or else nationally, to see if the resources are being distributed fairly across curriculum areas.

I see a great need for the boards of trustees as employing bodies to look at the development needs of their staff as a whole. I am not sure that this is happening and that the piecemeal approach where individual teachers take responsibility is still occurring.

If teachers are to be "professional" then an on-going professional development pathway needs to be set in place.

A professional in the school cluster area needs to be set up to carry out a "needs analysis" and suitable programmes set in place.

Linked with co-ordination of courses is co-ordination within schools and the opportunity

for follow-up from courses, sharing of ideas among teachers, and resource and data-based development. All teachers need to be committed to the need for professional development, not just the conscientious ones. In the view of 1 teacher, teacher development can be haphazard.

It may meet departmental needs but it doesn't always address personal development. We need experienced people to sit down and analyse strengths and weaknesses and look at career paths. This is usually ignored because younger teachers, if given the chance, may be vying for someone else's job. Therefore relevant information is not given out!

Five teachers supported paid study leave, particularly for long-serving teachers which would provide teachers with a longer sustained opportunity to bring them up to date, away from the demands of the classroom.

Four teachers spoke of the difficulties of getting sufficient professional development for all teachers in all schools. As 1 teacher put it:

Some courses, e.g., relating to new curriculum, demand 2 teachers per school - whatever the size of the school. This means that in a small school the bulk of P.D. funding is used up on that and there is little opportunity for other courses financially. Some teacher development should include *all staff* within a department, e.g., new curriculum and should be mandatory for all members.

Individual teachers made comments about specific courses they had attended which they valued; the difficulties of keeping up to date in all curriculum areas if a teacher taught more than one; lack of professional development in particular areas, for example, courses for counsellors, or management; and the reluctance of some schools to pay professional association and journal fees.

DISCUSSION AND CONCLUSION

The findings presented in this report are based on a small-scale pilot study carried out in 1992 in 2 regions: Wellington and Manawatu/Wanganui. The study has provided qualitative and quantitative data about secondary teachers' perceptions of their professional development over a period of 3 years.

This study indicates that virtually all the secondary teachers surveyed had undertaken professional development courses during the previous 3 years. These were most likely to be related to their major area of curriculum responsibility. This is also where they are most likely to want future courses. The colleges of education, including teacher support services, are the major providers of teacher development. School-based programmes and courses arranged by subject associations are also important. Two-thirds of the teachers were satisfied with the quality of the courses they had attended. The most common form of delivery was 1-day courses. About half the teachers were satisfied with the amount of teacher development they had had, and half would have liked more. A quarter of the teachers did not think there were any barriers to their teacher development. For those teachers who thought there were barriers, the most frequently mentioned was limited funding. Course and conference fees were the main item of expenditure for those teachers allocated money for teacher development. Three-quarters of the teachers had also spent personal money on teacher development. Most schools have a system of teacher appraisal but teachers are divided in their views as to whether there is, or should be, a link between teacher appraisal and professional development.

One purpose of the pilot study was to investigate the feasibility of a nation-wide study of teacher professional development. It is important, therefore, to be clear about what the pilot study achieved and what information a larger scale study could be expected to generate. The research questions for the pilot study were:

- 1 Who are the main providers of teacher professional development?
- 2 Are there any barriers to teacher access to professional development and, if so, what do teachers think these barriers are?
- 3 What are the main sources of information for teachers about professional development courses?
- 4 How do teachers spend money allocated for professional development?
- 5 Are teachers satisfied with the amount of professional development they have had?
- 6 In what areas would teachers like further professional development?
- 7 Is the amount of professional development undertaken by teachers related to the curriculum areas they teach?
- 8 Is access to professional development influenced by gender, ethnicity, status in school, and/or length of service, including broken service?
- 9 Do inequities exist for smaller and/or rural schools both in terms of access to, and type of, professional development?

10 Do teachers perceive that there is a link between professional development and teacher appraisal in their school?

Questions 1-7 and 10 were answered well through the questionnaire. The questionnaire was less successful in answering questions 8 and 9. One of the limitations of the study was the size of the sample. Numbers in the pilot study were generally too small to enable us to do any analysis other than straight frequencies. We undertook some analysis of the professional development data by "teacher" variables, such as ethnicity, gender, age of teacher, status of teacher, part-time/full-time employment, length of service, the main curriculum area taught; and "school" variables, by the location and size of the school. Possible trends were indicated by this analysis but where we cross tabulated questions the numbers in each cell were generally too few for statistical tests to be carried out with confidence. We were unable, therefore, to highlight possibly significant relationships, for example, links between tenure, position in school, and participation in teacher development, or to answer questions such as, are the providers of professional development curriculum courses different from those who provide non-curriculum courses?

A related but slightly different issue is the small numbers of particular groups of teachers of interest to the PPTA. It was pointed out in the body of the report that there were very few teachers in the study who were other than Pakehas. There were also very few part-time teachers. In order to collect data on teachers from other ethnic groups, or on part-time teachers, an approach other than simply increasing the sample size on a random basis is needed. If a national questionnaire survey were to be undertaken it would probably be better to specifically target these groups by drawing a stratified sample to ensure large enough numbers to be able to measure confidently differences between groups of teachers.

Before any further research is done on teacher development, a literature review should be undertaken. Changes in the delivery of teacher development and its impact on staff since the school reforms are discussed in the eighth report of the Monitoring Today's Schools project (Calder, 1992). Issues related to funding and budgeting are well covered in a recent national study on teacher development expenditure in primary and secondary schools, Wilson and Houghton (1993). Teacher development in specific curriculum areas is being addressed by evaluative studies commissioned by the Ministry of Education to monitor the introduction of the new curriculum initiatives, for example, Begg's (1991) study of the professional development of high school mathematics teaching and Gilmore's (1992) on information technology in the classroom. Bell (1993) has developed a curriculum development model on the basis of the work she and colleagues undertook as part of the Learning in Science Project. These and other studies are being used by the Ministry to develop models of teacher development which will provide them with the most effective and efficient use of their teacher development budget.

This pilot study, and any future research, needs to be seen in the context of recent developments in New Zealand secondary schools. Five issues of importance are.

- The increased responsibilities schools and their boards of trustees have to budget and manage their own teacher development and curriculum implementation following the Tomorrow's Schools reforms of 1989.
- The introduction of the New Zealand Curriculum Framework and the Qualifications Framework. Both of these developments require an emphasis on the professional

development of teachers for their successful implementation.

- The Modernisation Process in secondary schools which arose as an understanding between the PPTA and government during the 1993 collective employment contract settlement. Teacher development is seen as an important component in teacher quality. There needs to be a framework of training and retraining as the basis for teacher career paths.⁶
- The demographic characteristics of the secondary teaching force, in particular the fact that it is an aging workforce with a large proportion of very experienced and long-serving teachers.
- The establishment of effective models of teacher development.

This report provides some baseline data about individual teacher's involvement in, and satisfaction with, the professional development programmes available to them. We cannot tell from this study whether the teacher development undertaken by these teachers contributed towards school's goals, changed teaching behaviour, or improved learning outcomes for children.

Depending upon the information to be collected, there are a number of options for future research:

1. Undertake a national postal survey based on this regional study. This would produce quantitative data similar to that which came out of the pilot study but we would expect to be able to do more analysis of the data as discussed earlier. One of the advantages of this option is that we already have in the questionnaire a data collection instrument which has worked reasonably well in collecting the data it was designed to collect. We have also been through the process with this questionnaire of developing coding systems and data analysis, much of which could be used again on a national survey.
2. Targeted studies to investigate the teacher development experience of particular groups of teachers, for example, Maori, and/or part-time teachers. Such a study could be based upon individual or group interviews and could be undertaken in addition to or instead of option 1.
3. Case studies of schools. This report is based on the teacher development experiences of individual teachers. We cannot comment on the extent to which teacher development in secondary schools is geared towards whole school development. A case-study approach would generate more in-depth information related to, for example, whole school planning for teacher development; the extent to which teachers evaluate and modify their classroom programmes as a consequence of attending teacher development courses; perceptions of different groups of teachers, and successful models for teacher development.

⁶ *PPTA News*, Vol. 14, No. 5, Te Ara Hou/Modernisation Supplement.

BIBLIOGRAPHY

Begg, A. J.C. (1991) *Professional Development of High School Mathematics Teachers: Research Report No. 1*, Centre for Science and Mathematics Education Research. Hamilton, New Zealand, University of Waikato.

Bell, B. (ed.) 1993) *I Know About LISP But How Do I Put It Into Practice?* Final Report of the Learning in Science Project (Teacher Development) Centre for Science and Mathematical Education Research. Hamilton, New Zealand, University of Waikato.

Dunn, Alistair; Pole, Nicholas; Rouse, Jenny (1992) *The Education Sector Workforce; Te Pewanga Whakaakoranga o te Hunga Whaimahi*; A Report on the Education Services Census. Wellington, Ministry of Education.

Gilmore, A. (1992) *Information Technology in the Classroom: evaluation of a teacher development programme*. Christchurch, Education Department, University of Canterbury.

Learning Media (1994). *The New Zealand Curriculum Framework: Te Anga Matauranga o Aotearoa*. Wellington, Ministry of Education.

New Zealand Post Primary Teachers' Association. *PPTA News*. Vol. 14, No. 5, June, 1992. Wellington, NZPPTA.

_____ Vol. 15, No. 2, March 1994. Wellington, NZPPTA.

Calder, I.A. (1992) *Staff Development and Teachers Appraisal*. "Monitoring Today's Schools", report No.8, (ed.) Mitchell, D. Hamilton, University of Waikato.

Wilson, A.G. and Houghton, R. (1993) *Teacher Development Expenditure and Activities in Schools: National Study Report*. Dunedin, University of Otago Consulting Group.

Mitchell, H.A. and Mitchell, M.J. (1993) *Maori Teachers Who Leave the Classroom*. Wellington, NZCER.

APPENDIX I QUESTIONNAIRE

INTRODUCTION

The New Zealand Council for Educational Research is an independent research organisation whose purpose is to foster research into educational issues and to publish information and give advice on educational matters. It receives financial support from the state and many other bodies, but is not attached to a government department or to any other institution.

This survey is the first part of a joint study being undertaken by NZCER and the Post Primary Teachers Association. The primary focus of the study is to explore teacher perceptions of professional development. Specifically, what do individual teachers feel about teacher development and what has been their experience of teacher development; and has it fulfilled their needs?

The survey will be followed up with interviews of a smaller group of selected teachers.

CONFIDENTIAL

All material collected will be regarded as confidential and will be used for research purposes only.

The numbers at the back of this document are to enable the researchers to keep track of the questionnaires and will not be used for any other purpose.

INSTRUCTIONS

Please answer this questionnaire

EITHER by ticking the appropriate box

OR by circling a number

OR by writing in the space provided

Please disregard any numbers on the right hand side of the page. They are for office use only.

SECTION A: GENERAL

1. Are you

☐ a) Female

☐ b) Male

2. What is your age?

☐ a) 20-29 ☐ b) 30-39 ☐ c) 40-49 ☐ d) 50 +

3. With which ethnic group do you identify:

☐ a) Maori ☐ b) Pakeha/European ☐ c) Tongan

☐ d) Samoan ☐ e) Cook Islander ☐ f) Niuean

☐ g) Chinese ☐ h) Indian

☐ i) Other (please specify) _____

4A. Do you work

☐ a) Full time

☐ b) Part time

B. If part time please specify the number of hours you work

_____ hours

5. At present, what is your main area of teaching, eg. English.

Curriculum area:

1 2 3

4 5 6

_____	7 8 9
_____	b 1 2 3
_____	4 5 6
_____	7 8 9

6. What other curriculum areas do you teach?

_____	a 1 2 3
_____	4 5 6
_____	7 8 9
_____	b 1 2 3
_____	4 5 6
_____	7 8 9

7. Please indicate your position in the school

- ☐ a) Principal
☐ b) Deputy Principal
☐ c) Associate Principal/Senior Mistress
☐ d) PR 1 ☐ e) PR 2
☐ f) PR 3 ☐ g) PR 4
☐ h) Assistant teacher

8. Do you have any other responsibilities in the school?

- ☐ a) Dean ☐ b) Guidance Counsellor
☐ c) Careers Advisor ☐ d) Teacher/Librarian
☐ e) Other responsibility (please specify)

_____	f 1 2 3
_____	4 5 6
_____	7 8 9

9. How many years of teaching have you completed?

_____ years

10. Have you had broken service?

- ☐ a) Yes
- ☐ b) No

11. If 'Yes', was it for any of these reasons?

- ☐ a) Study leave
- ☐ b) Overseas travel
- ☐ c) Maternity leave
- ☐ d) Illness
- ☐ e) Unemployment
- ☐ f) Other (please specify) _____

12. Have you ever had paid study leave?

- ☐ a) Yes
- ☐ b) No

SECTION B: PROFESSIONAL DEVELOPMENT

The following questions relate to your experience of professional development as for the last three years only.

13A. Please describe the professional development you have been involved in during the last three years by specifying:

* **provider** * **length** * **the topic covered**

* and how **useful** you found it using the scale below:

excellent *very good* *good* *average* *poor*
1 2 3 4 5

Example one:

" You attended a school based program of hourly seminars, weekly for a total of six weeks, on new developments in physical education. You found the seminars somewhat useful and gave them an average rating."

A. PROVIDER

- ☐ a) College of Education/
Advisory Services
- ☐ b) Subject Associations
- ☐ c) Professional Reading
- ☐ d) School-based programmes
- ☐ e) Private providers
- ☐ f) MOE
- ☐ g) NZQA
- ☐ h) Other
(specify) _____

B. LENGTH

- ☐ a) _____ hrs
- ☐ b) _____ hrs x _____ weeks
- ☐ c) 1/2 day
- ☐ d) 1 day
- ☐ e) 2 days
- ☐ f) 3 - 5 days
- ☐ g) 1 week
- ☐ h) more than 1 week
- ☐ i) other
(specify) _____

C. ☐ TOPIC _____

D. ☐ RATING

Example two:

" You attended a MOE week course on developments in the new science curriculum. You found the course valuable."

A. PROVIDER

- ☐ a) College of Education/
Advisory Services
- ☐ b) Subject Associations
- ☐ c) Professional Reading
- ☐ d) School-based programmes
- ☐ e) Private providers
- ☐ f) MOE

B. LENGTH

- ☐ a) _____ hrs
- ☐ b) _____ hrs x _____ weeks
- ☐ c) 1/2 day
- ☐ d) 1 day
- ☐ e) 2 days
- ☐ f) 3 - 5 days
- ☐ g) 1 week

- ☐ g) NZQA
☐ h) Other
(specify) _____

- ☐ h) more than 1 week
☐ i) other
(specify) _____

C. ☐ TOPIC _____ D. ☐ RATING

1A. PROVIDER

- ☐ a) College of Education/
Advisory Services
☐ b) Subject Associations
☐ c) Professional Reading
☐ d) School-based programmes
☐ e) Private providers
☐ f) MOE
☐ g) NZQA
☐ h) Other
(specify) _____

B. LENGTH

- ☐ a) _____ hrs
☐ b) _____ hrs x _____ weeks
☐ c) 1/2 day
☐ d) 1 day
☐ e) 2 days
☐ f) 3 - 5 days
☐ g) 1 week
☐ h) more than 1 week
☐ i) other
(specify) _____

C. ☐ TOPIC _____ D. ☐ RATING

2A. PROVIDER

- ☐ a) College of Education/
Advisory Services
☐ b) Subject Associations
☐ c) Professional Reading
☐ d) School-based programmes
☐ e) Private providers
☐ f) MOE
☐ g) NZQA
☐ h) Other
(specify) _____

B. LENGTH

- ☐ a) _____ hrs
☐ b) _____ hrs x _____ weeks
☐ c) 1/2 day
☐ d) 1 day
☐ e) 2 days
☐ f) 3 - 5 days
☐ g) 1 week
☐ h) more than 1 week
☐ i) other
(specify) _____

C. ☐ TOPIC _____ D. ☐ RATING

3A. PROVIDER

- ☐ a) College of Education/
Advisory Services
☐ b) Subject Associations
☐ c) Professional Reading

B. LENGTH

- ☐ a) _____ hrs
☐ b) _____ hrs x _____ weeks
☐ c) 1/2 day
☐ d) 1 day

- ☐ d) School-based programmes
☐ e) Private providers
☐ f) MOE
☐ g) NZQA
☐ h) Other
 (specify) _____

- ☐ e) 2 days
☐ f) 3 - 5 days
☐ g) 1 week
☐ h) more than 1 week
☐ i) other
 (specify) _____

C. ☐ TOPIC _____

D. ☐ RATING

4A. PROVIDER

- ☐ a) College of Education/
 Advisory Services
☐ b) Subject Associations
☐ c) Professional Reading
☐ d) School-based programmes
☐ e) Private providers
☐ f) MOE
☐ g) NZQA
☐ h) Other
 (specify) _____

B. LENGTH

- ☐ a) _____ hrs
☐ b) _____ hrs x _____ weeks
☐ c) 1/2 day
☐ d) 1 day
☐ e) 2 days
☐ f) 3 - 5 days
☐ g) 1 week
☐ h) more than 1 week
☐ i) other
 (specify) _____

C. ☐ TOPIC _____

D. ☐ RATING

5A. PROVIDER

- ☐ a) College of Education/
 Advisory Services
☐ b) Subject Associations
☐ c) Professional Reading
☐ d) School-based programmes
☐ e) Private providers
☐ f) MOE
☐ g) NZQA
☐ h) Other
 (specify) _____

B. LENGTH

- ☐ a) _____ hrs
☐ b) _____ hrs x _____ weeks
☐ c) 1/2 day
☐ d) 1 day
☐ e) 2 days
☐ f) 3 - 5 days
☐ g) 1 week
☐ h) more than 1 week
☐ i) other
 (specify) _____

C. ☐ TOPIC _____

D. ☐ RATING

6A. PROVIDER

- ☐ a) College of Education/
Advisory Services
- ☐ b) Subject Associations
- ☐ c) Professional Reading
- ☐ d) School-based programmes
- ☐ e) Private providers
- ☐ f) MOE
- ☐ g) NZQA
- ☐ h) Other
(specify) _____

B. LENGTH

- ☐ a) _____ hrs
- ☐ b) _____ hrs x _____ weeks
- ☐ c) 1/2 day
- ☐ d) 1 day
- ☐ e) 2 days
- ☐ f) 3 - 5 days
- ☐ g) 1 week
- ☐ h) more than 1 week
- ☐ i) other _____
(specify) _____

C. ☐ TOPIC _____

D. ☐ RATING

13B: Further examples and/or comments:

[illegible]

14. How do you feel about the amount of professional development you have had?
Has it been:

- ☐ a) too much ☐ b) about right ☐ c) not enough

15. Please specify the areas in which you would like future professional development.

A. _____	A 1 2 3
_____	4 5 6
_____	7 8 9
B. _____	B 1 2 3
_____	4 5 6
_____	7 8 9

16. What, if any, do you feel are the barriers to you getting the professional development you need?

- ☐ a) There are no barriers.
☐ b) Insufficient funds in school budget for P.D.
☐ c) The money always goes to other people.
☐ d) I have no say in the P.D. I undertake.
☐ e) Relevant programmes are not available.
☐ f) Courses unavailable in the format that I require.
☐ g) Programmes unavailable at times convenient to me.
☐ h) I do not know what is available.
☐ i) I do not have the time.
☐ j) Unwillingness of school to release me.
☐ k) Remoteness of school prohibits attending PD.

17. Where do you get information about professional development courses that are available?

- ☐ a) Education Gazette
☐ b) HOD
☐ c) PPTA
☐ d) College of Education

☐ e) The Principal

☐ f) Other (please specify) _____

18. If you have been allocated money for teacher development, how have you spent it?

- ☐ a) Course fees
- ☐ b) Conference fees
- ☐ c) Membership of associations
- ☐ d) Journal subscriptions
- ☐ e) Travel expenses
- ☐ f) Accommodation expenses
- ☐ g) I have not had money allocated for teacher development

19. Have you spent any of your personal money on professional development?

- ☐ a) Yes
- ☐ b) No

20. If 'yes' Approximately how much?

\$ _____

21. Does your school have a teacher appraisal system in operation?

- ☐ a) Yes
- ☐ b) No

22A. Do you see a direct link between professional development and teacher appraisal in your school?

- ☐ a) Yes
- ☐ b) No

Comment: _____

B 1 2 3

4 5 6

7 8 9

23. Are there any further comments you would like to make about teacher development?

_____	A 1 2 3
_____	4 5 6
_____	7 8 9

THANK YOU FOR COMPLETING THIS QUESTIONNAIRE.

PLEASE RETURN IT IN THE ENVELOPE PROVIDED BY 20 AUGUST 1993.